

John Bianchi

Professional CV

Last update
24/04/2025

Work Experience

- National Ph.D. program in Cybersecurity (Ph.D. CySec)**

IMT School for Advanced Studies Lucca

 - Thesis title: Automatic evaluation of online news outlets' reliability
 - Advisor: Fabio Pinelli
 - Co-advisor: Marinella Petrocchi

01 Dec. 2023 – Present

Lucca, Italy
- Research Collaborator at**

IMT School for Advanced Studies Lucca

 - Member of the TOFFE project (*TOols for Fighting FakeEs*)
 - Within the project, I was in charge of developing new methods, based on deep learning techniques and explainable AI, to automatically assign a reliability score to a news outlet.

01 Jan. 2023 - 01 Dec. 2023

Lucca
- Junior Staff in Consulting**

Deloitte & Touche SpA

 - Back-end development for e-commerce websites using *Salesforce commerce cloud*.
 - Development of an e-commerce platform for Unicoop Firenze's online grocery shopping.

21 March. 2022 - 21 Dec 2022

Milano, Italy
- Student Trainee**

Institute of Information Science and Technologies - ISTI CNR

 - NLP software development for the Named Entity Recognition task required by the *ASFA* division of *Food and Agriculture Organization of the United Nations (FAO)*.

01 Mar. 2021 - 01 Jun. 2021

Pisa, Italy
- Web Developer**

Wally Communication

 - Website development using *WordPress* with *Elementor* page builder.

01 Jun. 2020 - 01 Jan. 2021

Lucca, Italy
- ICT Help Desk Agent**

Accademia di Belle Arti di Carrara

 - Technical support for examination and graduation session.

01 Jun. 2020 - 01 Oct. 2020

Massa-Carrara, Italy
- Digital Audio Transcriber**

Sigma Technologies S.L.U.

 - Transcription of Google voice action digital audio.

15 Feb. 2019 - 15 Jul. 2019

Madrid, Spain - Remote work
- Student Trainee**

Institute of Informatics and Telematics - IIT CNR

01 Feb. 2019 - 01 Mar. 2019

Pisa, Italy

- Development of a Web Scraping Software for the automated acquisition of data regarding tourism flows in four different areas of Tuscany.

- **Bartender** 15 Jun. 2016 - 30 Dec. 2019
Bar Ponte Del Giglio Lucca, Italy
 – Customer service, handling phone calls and payments

Education

- **MSc Digital humanities - *Language technology*** — 101/110 26 Sep. 2019 – 03 Feb. 2022
University of Pisa Pisa, Italy
 – LM-43 - 2nd level degree in Computer Science for humanities - Department of Philology, Literature and Linguistics. Training course in *Language Technology*
 – **Dissertation/thesis title:** Automatic recognition of scientific names of species in texts for FAO document indexing. **Thesis supervisor:** Dr. Gianpaolo Coro
- **BSc Digital humanities** — 98/110 04 Sept. 2014 – 09 May 2019
University of Pisa Pisa, Italy
 – L-10 - 1st Level Degree in Humanities - Department of Philology, Literature and Linguistics
 – **Dissertation/thesis title:** Design and development of a low-cost platform for the acquisition and analysis of tourism-related data. **Thesis supervisor:** Dr. Andrea Marchetti
- **Erasmus+ Programme** 24 Sept. 2020 – 11 Jan. 2021
King's College London London, United Kingdom
- **Italian High School Diploma** — 67/100 Sep. 2009 – July 2014
Liceo Artistico "A. Passaglia" Lucca, Italy

Foreign language skills

- **English IELTS Academic** 01 Dec. 2018
British Council.
 – Europass level B2.

Publications

- **Evaluation of Reliability Criteria for News Publishers with Large Language Models**
 Manuel Pratelli, John Bianchi, Fabio Pinelli, Marinella Petrocchi
17th ACM Web Science Conference (WebSci'25), May 20–23 2025, New Brunswick, NJ, USA. In press.
 Preprint: arxiv.org/abs/2412.15896

- **Automatic Evaluation of Online News Outlets' Reliability**
John Bianchi
In *European Conference on Information Retrieval (ECIR 2025)*, Springer, pp. 197–203, 2025.
DOI: [10.1007/978-3-031-88720-8_32](https://doi.org/10.1007/978-3-031-88720-8_32)
- **Evaluating Trustworthiness of Online News Publishers via Article Classification**
John Bianchi, Manuel Pratelli, Marinella Petrocchi, Fabio Pinelli
In *SAC '24: Proceedings of the 39th ACM/SIGAPP Symposium on Applied Computing*, ACM, pp. 671–678, 2024.
DOI: [10.1145/3605098.3636044](https://doi.org/10.1145/3605098.3636044)
- **Automatic Association of Quality Requirements and Quantifiable Metrics for Cloud Security Certification**
John Bianchi, Shuya Dong, Luca Petrillo, Marinella Petrocchi
In *4th Italian Workshop on Artificial Intelligence and Applications for Business and Industries (AIABI 2024)*. In press.
Preprint: arxiv.org/abs/2503.09460
- **Weaponizing Disinformation Against Critical Infrastructures**
Lorenzo Alvisi, John Bianchi, Sara Tibidò, Maria Vittoria Zucca
In *ESORICS Workshops (2) 2024: 374–389: European Symposium on Research in Computer Security*
DOI: [10.1007/978-3-031-82362-6_23](https://doi.org/10.1007/978-3-031-82362-6_23)
- **Automatic Recognition of Scientific Names of Species in Texts for FAO Document Indexing**
John Bianchi (Master's Thesis Project)
The developed NER system is deployed as web service integrated with [FAO ASFA](https://etd.adm.unipi.it/theses/available/etd-01142022-185652/unrestricted/Tesi.pdf).
URL: <https://etd.adm.unipi.it/theses/available/etd-01142022-185652/unrestricted/Tesi.pdf>
Web Service: <http://nlp.d4science.org/asfa/>

Data Analysis Tools

- **Python (NumPy, pandas, scikit-learn, PyTorch)** — I worked/work with these tools in various research projects:
 - [Evaluation of news outlets reliability using LLMs](https://arxiv.org/abs/2412.15896) (WebSci'25) — <https://arxiv.org/abs/2412.15896>.
 - [Reliability classification of news outlets](https://doi.org/10.1145/3605098.3636044) (SAC '24) — <https://doi.org/10.1145/3605098.3636044>.
 - [Disaster-tweets classification project](https://github.com/bianchi-john/personalWebsite/blob/main/documents/Disaster-Tweets-Project.pdf) — <https://github.com/bianchi-john/personalWebsite/blob/main/documents/Disaster-Tweets-Project.pdf>.
- **Python (Pandas, Scikit-learn, Numpy)** — Used for data understanding, manipulation, clustering, association rules, and classification on the Carvana dataset to predict car purchase outcomes
(https://bianchi-john.github.io/personalWebsite/documents/Data_Mining_I.pdf).
- **Tableau** — Designed dashboards and visualizations for the regional socio-economic report: [Pro3 Borghi, paesi, aree interne report](https://github.com/bianchi-john/personalWebsite/blob/main/documents/Rapporto-Borghi.pdf) — <https://github.com/bianchi-john/personalWebsite/blob/main/documents/Rapporto-Borghi.pdf>.

- **Node.js, MySQL, Docker** — I have developed and containerized public APIs for cultural heritage datasets within the [Lucca National Museums project \(LuminaReborn\)](https://github.com/bianchi-john/LuminaReborn) — <https://github.com/bianchi-john/LuminaReborn>.
- **BeautifulSoup, Selenium** — I have built a web scraping system to automate acquiring tourism flow data from Tuscan municipal websites. It was my bachelor's degree thesis proposal <https://bianchi-john.github.io/personalWebsite/documents/Documentation.pdf>

Deep Learning and Generative AI

- **PyTorch, TensorFlow, HuggingFace Transformers** — Core frameworks for article-classification and reliability models:
 - “Evaluation of Reliability Criteria for News Publishers with Large Language Models” (WebSci '25) — Preprint: <https://arxiv.org/abs/2412.15896>
 - “Evaluating Trustworthiness of Online News Publishers via Article Classification” (SAC '24) — DOI: <https://doi.org/10.1145/3605098.3636044>
- **Simple Transformers (BERT)** — Disaster-tweets classification pipeline: [Disaster-tweets classification project](https://github.com/bianchi-john/personalWebsite/blob/main/documents/Disaster-Tweets-Project.pdf) — <https://github.com/bianchi-john/personalWebsite/blob/main/documents/Disaster-Tweets-Project.pdf>
- **LIME, SHAP** — Explainable AI integration for fact-checking and reliability evaluation in the TOFFEE project: <https://toffee.imtlucca.it/>
- **OpenAI Transformer Models** — Prompt prototyping for source-reliability criteria in WebSci '25: Springer link: https://link.springer.com/chapter/10.1007/978-3-031-88720-8_32

Research Topics in Countering Disinformation

- **Misinformation detection** — I have trained Machine learning classifiers on NewsGuard data to assess a news outlet reliability level, in SAC '24: DOI: [10.1145/3605098.3636044](https://doi.org/10.1145/3605098.3636044)
- **News Source Reliability Metrics** — I experimented with Large-language-models for the evaluation of reliability criteria for news outlets, in WebSci '25: Preprint: <https://arxiv.org/abs/2412.15896>
- **Hybrid Disinformation Threats** — Co-authored a study modeling disinformation as a hybrid attack on critical infrastructures, with three case studies and criminological and human-rights analyses (ESORICS 2024): Springer link: [..._23](#)
- **Explainability for fact-checking** — I experimented with XAI methods for understanding the reliability level of news outlets, in TOFFEE: Project: <https://toffee.imtlucca.it/>

Programming Languages

- **Python** — Extensive use in research and development throughout my Ph.D. and former research associate role, for data analysis, machine learning model development, and prototype implementations.

- **LaTeX** — Academic and professional document preparation for publications, reports, and CV formatting.
- **JavaScript (Node.js), HTML/CSS** — Full-stack web development across LuminaReborn project and e-commerce platforms at Deloitte.
- **PHP** — WordPress theme and plugin customization during Wally Communication engagements.
- **SQL (MySQL)** — Database schema design and query optimization for LuminaReborn API backends.
- **Bash** — Shell scripting and Docker automation in the LuminaReborn project.

Miscellaneous

- I acted/act as reviewer for the following conferences:
 - SIGIR 2023 (Conference on Research and Development in Information Retrieval)
 - SIGIR 2024 (Conference on Research and Development in Information Retrieval)
 - ROMCIR 2024 (Reducing online misinformation through credible information retrieval)
 - ITASEC 2023 (Italian Conference on Cybersecurity)
 - ESORICS 2023 (European Symposium on Research in Computer Security)
 - EAI Intetain 2023 (14th EAI International Conference on Intelligent Technologies for Interactive Entertainment)
 - ECIR 2024 (46th European Conference on Information Retrieval)
 - The Web Conference 2024 - Web4Good
 - ECAI-2024 (2024 European Conference on Artificial Intelligence)
 - ITASEC 2024 (Italian Conference on Cybersecurity)
- I was part of the Organizing Team at the *Conference on Principles of Distributed Systems - OPODIS 2024*
 - General Chair: Prof. Letterio Galletta (IMT School, Italy)
 - Conference website: opodis2024.imtlucca.it
 - Date: 11–13 Dec. 2024

I authorize the processing of personal data under EU Regulation 2016/679 (GDPR).

Lucca, 24 April 2025

John Bianchi